

CLAIMS

1. A method of accurately trimming a lens (1) in order to enable it to be mounted in a determined frame rim, in which method the lens is held between two clamping pads (2, 3) in a defined position in a frame of reference associated with the pads, and grinding of the periphery of the lens (1) is controlled along a trajectory whose programmed terminal portion corresponds on the lens to the shape (8) of the outline of the rim, the method being characterized in that it comprises:

· while the lens is in a lightly clamped condition, taking first measurements of a plurality of points on a face of the lens;

15 · while the lens is in a tightly clamped condition, as is required for trimming the lens, taking second measurements of another plurality of points on said face of the lens;

20 · on the basis of the above measurements, making an approximate mathematical representation of the above-mentioned face of the lens in each of the two clamping conditions;

25 · using the above mathematical representations to calculate the coordinates of the transformed points of the trace of the programmed shape of the rim on said face of the lens, said transform being the result of the lens being deformed in compliance with a model obtained on passing from the first clamping condition to the second; and

30 · correcting each of the points of the programmed milling trajectory by an amount defined by the difference between the programmed coordinates and the calculated coordinates.

35 2. A method according to claim 1, characterized in that the first measurements comprise tracing points of said face belonging to at least one meridian arc in a zone adjacent to said trace, including the point of

intersection between said meridian arc with said trace,
in order to determine a mathematical approximation of the
shape of said meridian arc, in that the second
measurements comprise tracing points of the meridian arc
5 as already traced in order to determine a mathematical
approximation to the shape of said arc in correlation
with the first approximation, and in that the above-
mentioned calculation and correction consists in
calculating the values of the coordinates of the point of
10 intersection between the trace and the meridian arc in
the mathematical representation of the meridian arc under
deforming stress and in correcting the terminal portion
of the trajectory of the grinding wheel by a coefficient
15 derived from the difference between the measured
coordinates and the calculated coordinates for said point
of intersection.

3. A method according to claim 1 or claim 2,
characterized in that the second measurement is taken
20 after a stage of roughing out the lens.

4. A method according to claim 2 or claim 3,
characterized in that the mathematical approximation is a
25 polynomial approximation.

5. A method according to any one of claims 2 to 4,
characterized in that the meridian arcs are traced along
four arcs that are offset by 90° about the center (C) of
the lens (1).

30 6. A method according to claim 5, characterized in that
the above-mentioned correction coefficient for each point
of the trajectory situated between two adjacent traced
meridian arcs is implemented by linear interpolation.

7. A method according to claim 1, characterized in that it includes tracing the rim on the above-mentioned face of said lens.
- 5 8. A method according to claims 5 and 7, characterized in that the above-mentioned correction coefficient for the trajectory between two adjacent felt meridian arcs is determined by an interpolation formula, itself determined from data measured while tracing said trace of the rim.